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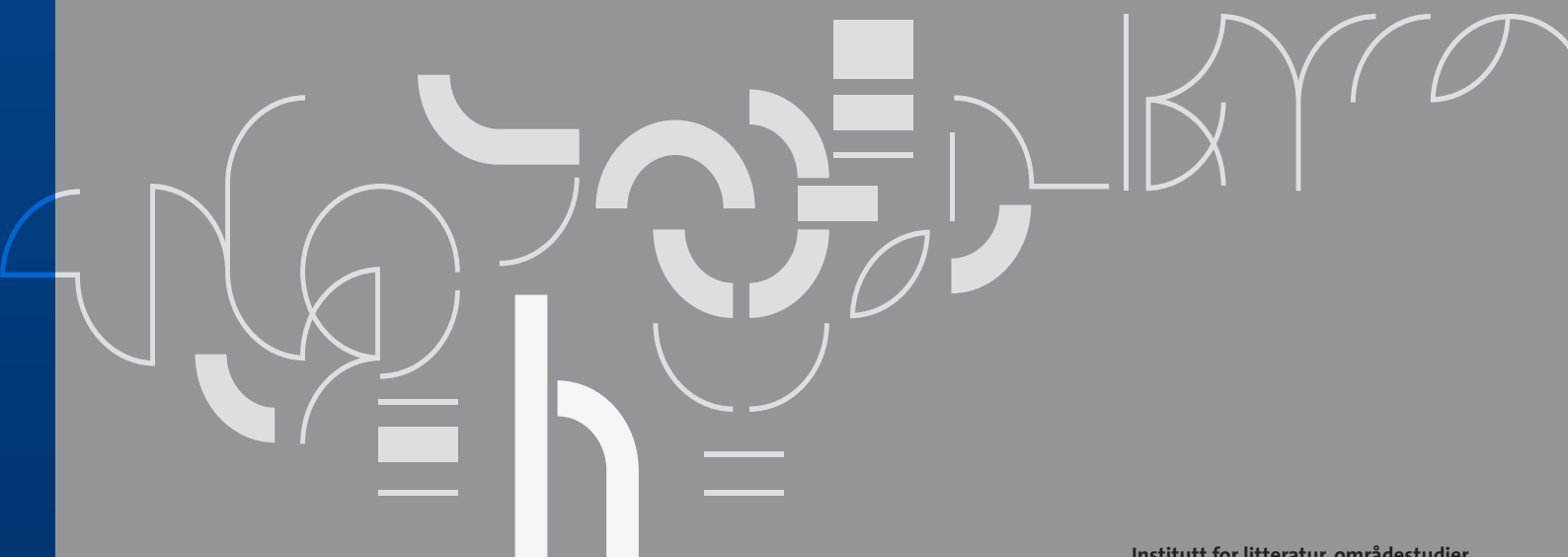


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# Analyticity under Perspective: Indefinite Generics in French

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# Analyticity under Perspective: Indefinite Generics in French<sup>\*</sup>

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## Abstract

Starting from the observation that a sentence like ??*a dog is intelligent* is difficult in the generic domain in the same way as ??*a student is shy* is in the existential one, this paper argues that as for the existential reading, the generic interpretation of the indefinites also needs a “context”. Adopting an explicit modal interpretation of GEN, our account builds on Greenberg (2002) insight that indefinite generic sentences require a special kind of modal bases. After pointing out some shortcomings of Greenberg’s theory, we propose an account of *point of views* as restrictors of modal bases. We represent point of views as world-judge pairs à la Ross (1997) and show that, besides modals, which always rescue indefinite generic sentences different phenomena like contrast, focus, evaluative adverbs and evidential uses of propositional attitude verbs are also manifestations of point of views.

## 1 Introduction

Since the work of Attal (1976), it is recognized<sup>1</sup> that the existential interpretation of indefinites in French can only be obtained inthetic sentences (Kuroda, 1975) with presentational predicates.

- (1)    a. ??Un élève est timide / *A student is shy*  
      b. Un élève est entré / *A student came in*

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<sup>\*</sup> I am indebted to Fabienne Martin and Claire Beyssade for long discussions on the topic. Many thanks to Jacques Jayez, Marion Carel, Carmen Dobrovie-Sorin and Nathan Klindienst. I would also like to thank the audiences of ESSLLI 2007 workshop on Quantifier Modification and of WCCFL 26 to which previous versions were presented. All mistakes are mine.

<sup>1</sup>See, e.g. Dobrovie-Sorin, 1995 and for English, Ladusaw, 1994; McNally, 1996 and Glasbey, 1998.

It is also assumed that the generic reading of indefinites is obtained precisely in the absence of a situational parameter. This is always the case with i-level predicates (Chierchia, 1995), which are considered to be inherently generic. Classically, GEN is treated as an unselective quantifier *à la* Lewis (Lewis, 1975), which relates a restrictor and a matrix. The variables in the restrictor are bound by GEN and thus get their generic reading. The theory generates as acceptable (2a) – (3a) whose LFs are in (2b) – (3b).

- (2) a. ??Un chien aboie (generic reading) / *A dog barks*  
       b. GEN x [dog(x)][barks(x)]
- (3) a. ??Un chien est intelligent (generic reading) / *A dog is intelligent*  
       b. GEN x [dog(x)][intelligent(x)]

However, speakers consider (2a) and (3a) very difficult, the same way as (1a) is. They often tend to add some extra material, as, for instance, noun modifiers, focus, contrast, attitude verbs, and frequency adverbs. These additions are not innocent and need close investigation.

It is worth noting that this difficulty is related to indefiniteness. French plural definites, which correspond to bare plurals in English (Dobrovie-Sorin, 2007), are usually contrasted with indefinites, cf. (4a-b).

- (4) a. Les chiens aboient / *Dogs bark*  
       b. Les chiens sont intelligent / *Dogs are intelligent*

The difference between generic indefinite sentences and plural definites has been traditionally related to the distinction analytic vs. synthetic judgments. It has also been put forward that the first ones are only compatible with essential properties, whereas the second ones can support non-essential ones (Dähl, 1975; Burton-Roberts, 1977; de Swart, 1991).

However, Greenberg (2002) has recently argued that indefinite generic sentences are not necessarily associated with essential properties (*A carpenter earns very little*). Nonetheless, the author maintains that indefinite generics do not require verifying instances and express a law that does not rely on induction. In an explicit modal framework, Greenberg has expressed the distinction between indefinite generic sentences and generically interpreted bare nouns by identifying two types of restrictions on modal bases (Kratzer, 1981) with respect to which the proposition expressed by the two types of sentences are true.

We build on this insight, show that Greenberg choice of accessibility relation is not entirely accurate and propose a different criterion for restricting the modal basis, which relies on *point of views* (known as *media* (Ross, 1997)). Technically, they are implemented as world-judge pairs and are sets of content coherent propositions, for a

given judge. *Point of views* legitimate generic indefinites. Different syntactic, lexical and discursive strategies can serve this purpose.

The paper is structured as follows. We present in section 2 some strategies that speaker use to rescue indefinite generic sentences and discuss in section 3 two accounts of indefinite generic sentences dedicating a particular attention to Greenberg's theory. In section 4 we first present our account (section 4.1) and then come back to the data (section 4.2). The aim of the paper is to indirectly argue that indefinites, no matter whether existential or generics, need to be legitimated, and point of views, as sets of world-judge pairs, fill this task. That indefinites need an anchoring context is a robust observation for French, which cuts across existential readings, generics, and predicative uses (Mari and Martin, 2008b).

## 2 Rescuing strategies

To rescue (2a) and (3a), speakers overwhelmingly rely on contrast, by using appropriate prosody. As we argue in the rest of the paper, this is not an innocent feature. Together with discursive strategies that enable the use of indefinite generic sentences, they explain the conditions of their felicity.

### 2.1 Modification?

It has been argued that if the subject NP is modified, sentences are better accepted. Some authors (e.g. Heyd, 2002; Dobrovie-Sorin and Mari 2007) have proposed that only stage level predicates (Carlson, 1977) can rescue the sentences and assume with Rooth (1995) that they give rise to *when/if* paraphrases. (5a) is considered acceptable since *malade* (*sick*) introduces an event, whereas *intelligent* does not (6a).

Close investigation of the data shows instead that both stage (5b) and individual level predicates (6b) can be used, provided that a contrastive topic (CT) is put in place by appropriate stress (see for C-contour in French, Beyssade, Marandin, Rialland, 2003). In most of the cases, the comment part also contains a focused constituent. Both (5) and (6) can be typically used as an answer to: “Qui est comment?” / *Who is how?* and its subquestion: “Quel type d'enfants est comment?” *What kind of children is how?*<sup>2</sup> (With

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<sup>2</sup>Heyd (2002) has also argued that non predicative adjectives cannot be used as NP-subject modifier. The examples are hers.

- (i) \*Un éléphant est d'Afrique / *An elephant is African*  
 \*Un éléphant d'Afrique a une corne / *An African elephant has a horn*  
 (NB « avoir une corne » is not an essential property of the elephant)

Again, if appropriately focused, these modifiers can also rescue the sentence.

Büring (2003) we assume that focus is needed when alternatives are left open by the relevant constituent in the question).

- (5) a. ??Un enfant malade est grincheux / *A sick child is fussy*  
 b. [Un enfant MALade<sub>F</sub>]<sub>CT</sub> est [GRINcheux<sub>F</sub>]<sub>COMM</sub>
- (6) a. ??Un enfant intelligent est renfermé / *An intelligent child is shy*  
 b. [Un enfant INTelligent<sub>F</sub>]<sub>CT</sub> [est RENfermé<sub>F</sub>]<sub>COMM</sub>

## 2.2 More on contrast

Similarly, when the contrast is overtly expressed, the sentence is unproblematic, provided that appropriate stress is used. Assuming that the question under discussion is ‘what kind of animal is intelligent?’ (intelligence is *given*), here are two possible answers.

- (7) [Un CHIen<sub>F</sub>]<sub>CT</sub> [est intelligent]<sub>COMM</sub>, [un CHAT<sub>F</sub>]<sub>CT</sub> [\_ NON<sub>F</sub>]<sub>COMM</sub>  
*A dog is intelligent, a cat is not*
- (8) [Un CHIen<sub>F</sub>]<sub>CT</sub> [est intelligent]<sub>COMM</sub>, [un CHAT<sub>F</sub>]<sub>CT</sub> [\_ AUSSI<sub>F</sub>]<sub>COMM</sub>  
*A dog is intelligent, cat too*

As is well-known, focus in CT introduces the presupposition that there are other alternatives for the focused value (e.g. Rooth, 1985, Büring, 2003). The N can be simply focused as well. In this case, the contrastive categories are accommodated, a (costing<sup>3</sup>) procedure which, again, can be used felicitously in appropriate discourses.

- (9) A: Les enfants, qu’est-ce qui miaule? / *Boys, what is that meows?*  
 B: [Un CHAT<sub>F</sub>]<sub>CT</sub> [miaule]<sub>COMM</sub> / *A CAT meows*

## 2.3 Propositional attitudes

When the sentence is embedded under a propositional attitude verb, its acceptability is restored, with some constraints though. It has first to be noted that lexical differences between verbs matter. *Trouver* (*find*) support evaluations (10a) better than *croire* (10a). *Croire* can support questions about a fact as in (10c), which, besides a salient existential reading can be interpreted generically; *trouver* does not support facts under any circumstances (10d).

- (10) a. ?Je crois qu’un chien est intelligent / *I believe that a dog is intelligent*

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(ii) Un elephant D’AFRIQUE a une corne / *An African elephant has a horn*

<sup>3</sup>It is worth noting that the strategy is costing, and that speakers might prefer to use a straightforward expression, with definite plurals, for instance.

- b. Je trouve qu'un chien est intelligent (Ducrot, 1975) / *I find that a dog is intelligent*
- c. Je crois qu'un chien aboie, non? / *I believe that a dog barks, isn't it?*
- d. \*Je trouve qu'un chien aboie, non? / *I find that a dog barks, isn't it?*

*Trouver* does not support mathematical truths (#*Je trouve que 2+2=4*) or, more generally, propositions that can be ascertained as true or false by adding evidence. In other terms, *trouver* only signals the personal view of the speaker leaving open the possibility that contradictory propositions are supported by different judges in the same world<sup>4</sup>.

Similarly, the behavior of *croire*, which is preferably used in approval-requesting-questions, highlights the fact that the assertion it introduces cannot be freely added to the common ground.

When focused, *savoir* (*know*) can be used to embed indefinite generic sentences with an evaluative predicate.

- (11) a. \*Je sais qu'un chien est intelligent / *I know that a dog is intelligent*
- b. Je SAIS qu'un chien est intelligent

(11a) has two interpretations: (i) the speaker claims, contrary to the hearer, that a dog is intelligent, or (ii) the speaker makes clear that, contrary to what the hearer seems to hold, (s)he is aware of the fact that a dog is intelligent. In these two cases, *savoir* has an evidential use, i.e. indicates (a) the source of the evidence is given as well as (b) the degree of confidence (Fogelin, 1967 and later Simons, 2007).

Summing up, in all acceptable cases in (10)-(11), a *polyphonic* (Ducrot, 1984) context is put in place, in which the truth of the generic sentence holds for one of the participants of the conversation only.

## 2.4 Frequency adverbs

Besides frequency adverbs (12), which have been convincingly analyzed as counting events in which the co-occurrence of the properties expressed by the NP subject and the VP is observed (e.g. Rooth, 1995; de Swart, 1991), other adverbs, called expectation adverbs, can also improve the acceptability, cf. (13). The event-counting theory cannot explain their behavior, though.

- (12) Un chien est souvent intelligent / *A dog is often intelligent*

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<sup>4</sup>In a similar vein, Stephenson (2006) suggests that *find* can only express an evaluation that is bound to the attitude holder.

- (13) [Un chien]<sub>TOPIC</sub> [est [SANS doute]<sub>F</sub> intelligent]<sub>COMM</sub> / *A dog is, without any doubt, intelligent*

## 2.5 Modalities

Generic indefinites have been noted as not problematic in modal sentences (Dahl, 1975 ; Burton-Roberts, 1977 ; de Swart, 1996 ; Heyd, 2002 ; Dobrovie-Sorin and Mari, 2007). It has been suggested by Dobrovie-Sorin and Mari (ibid.) that modals indirectly induce quantification over events. However, the intuition and the formal details are obscure and we prefer to adopt a more classical view of modality à la Lewis/Kratzer, as only inducing quantification over worlds. It is to be noted that evaluative and factives can be used under a modal.

- (14) [Un chien]<sub>TOPIC</sub> [[peut]<sub>F</sub> être intelligent]<sub>COMM</sub> / *A dog can be intelligent*
- (15) [Un [étudiant]<sub>F</sub>]<sub>CT</sub> [[peut]<sub>F</sub> travailler dans cette salle]<sub>COMM</sub>  
*A student is allowed to work in this room*

## 2.6 Circumstances

For completeness sake, it is worth noting that indefinite generics with a non-evaluative predicate are also better accepted if a frame is provided, which is in a causal relation with the content of the generic sentence.

- (16) Un chien aboie lorsqu'il a faim / *A dog barks when he is hungry*

Before we discuss current theories of indefinite generics and propose our account, we narrow down the scope of the paper. Firstly, we pay a special attention to evaluative predicates. We do not mention either the constraints pending on plural indefinites (see Dobrovie-Sorin and Mari, 2007; Mari and Martin, 2008a). Finally, we do not consider *ce* constructions (*Un chien, c'est intelligent*) which would require a lengthily discussion *per se* (see Carlier, 1996).

## 3 Parameters for the interpretation of indefinite generics

GEN has been often interpreted in modal terms (Krifka *et al.* 1995). Under the classical account, as pointed by Greenberg (2002), the interpretation of generic indefinites ((2a) or (3a)) and bare plurals (4) (plural definites in French) coincide.

Let  $M = \langle A, W, R, f \rangle$ , where  $A$  is a set of entities,  $W$  a set of worlds,  $R$  an accessibility relation of maximal similarity and  $f$  an assignment function. The explicit modal interpretation of GEN (17a) is in (17b).



- (17) a. GEN x [P(x)][Q(x)]  
 b.  $\forall w' [[w' R w] \rightarrow \forall x [[P(x, w')] \rightarrow [Q(x, w')]]]$

The classical interpretation has been amended in various ways to capture the interpretation of generic indefinites specifically. The first amendment we discuss is the one involving quantification over events.

### 3.1 Quantification over events

It has been argued that GEN can bind either individuals or events (e.g. Chierchia, 1995; de Swart, 1991). Some authors have distinguished GEN from HAB, but the details of this distinction are not unequivocally settled in the literature. For most of the authors, GEN (or its HAB version, in this case) counts events and thus binds event variables. This seems to straightforwardly apply to frequency adverbs. In (12), *souvent* (*often*) is taken to count situations in which the intelligence of the dog can be observed. The same treatment is probably suitable for case (16). It has also been proposed to extend it to cases with modified subject NP that can be paraphrased by a *when* clause (Heyd, 2002; Dobrovie-Sorin and Mari, 2007). In the LF for (5), repeated in (19), GEN is taken to count events, and individuals are only indirectly bound to events by the Skolem function *f* (see Dobrovie-Sorin and Beyssade, 2004).

- (18) Un enfant malade est grincheux / *A sick child is fussy*  
 $\exists f \text{ GEN } e \text{ [sick}(e) \& \text{child}(f(e))][\text{fussy}(f(e))]$   
 $\exists f \forall w' [[w' R w] \rightarrow \forall e [[P(e, w') \& S(f(e))] \rightarrow [Q(x, w')]]]$

Even assuming that this representation only cover the relevant cases, some major concerns remain. **1.** It simply represents the sickness as the *occasion* in which a child is fussy, and the causal link between the property being sick and the property being fussy, is lost. **2.** It generates as appropriate sentences such as

- (19) #Un garçon est intelligent dans un train / *A boy is intelligent in a train*

where *in the train* provides the event in which being a child and being intelligent are verified. The sentence can be acceptable, though, if a causal link between *being in the train* and *being intelligent* is assumed.

### 3.2 ‘In virtue of’ accessibility relation

Greenberg takes seriously the fact that indefinite generics are bounded to the expression of laws of a nature different than the simple co-occurrence of two events (along the lines of the tradition which states that indefinite express analytic laws) or the repetition of the manifestation of a property in certain circumstances. However, in view of the fact that they do not necessarily require essential properties, e.g. *a carpenter earns very little*, Greenberg looks for a new criterion for the use of indefinite generics.

Greenberg argues that indefinite generics and generic bare plurals give rise to two different kinds of interpretations that can be teased apart by distinguishing two different kinds of accessibility relations. Greenberg starts from the three following minimal pairs.

- (20) a. \*A room is square  
b. Rooms are square
- (21) a. A Norwegian student whose name ends with 'p' wears green socks  
( $\exists$  salient)  
b. Norwegian students whose name ends with 'p' wear green socks
- (22) a. \*An Italian restaurant is closed tonight  
b. Italian restaurants are closed tonight

The author labels indefinite generic sentences and bare plural generics as IS and BE sentences respectively. BE sentences are claimed to express regularities which are expected to hold in worlds maximally similar to ours and express descriptive (inductive) generalizations. The classical interpretation of GEN holds for bare nouns and is repeated below, where R is maximal resemblance.

- (23) A BE sentence is true in  $w$  iff:  
 $\forall w' [w' R w] \rightarrow \forall x [[P(x, w')] \rightarrow [Q(x, w')]]$

Contrary to BE sentences, IS sentences are claimed to only be able to express "in virtue of" generalizations, i.e. deductive generalizations. The modal interpretation of indefinite generics accommodates a property in virtue of which the generalization holds. The accommodated property ( $S$ ) is "associated" to the NP property ( $P$ ). The notion of association is defined as in (25):

- (24) Association:  $S$  is associated with  $P$  in  $w$  iff  $\forall x [P(x) \rightarrow S(x)]$  holds in all worlds epistemically/deontically/stereotypically accessible from  $w$

The use of IS sentences is governed by the following rule:

- (25) An IS sentence is true in  $w$  iff  
 $\exists S \forall w' [\forall x [[P(x, w')] \rightarrow [S(x, w') \wedge S \text{ is associated with } P]] \rightarrow$   
 $\forall x [[P(x, w')] \rightarrow [Q(x, w')]]]$

Though appealing, this account raises some concerns with respect to the treatment of modified subject NPs. For interpreting (27) in Greenberg's framework, one has two options.

- (26) Des leaders violents sont dangereux  
*'Des' (plural indefinite) violent leaders are dangerous*

The first one is to assume, along the lines of what Greenberg suggests for a similar case, that *violent leader* is associated with a related property, which causes *danger*.

- (27) a. Des leaders violents sont dangereux (in virtue of some associated property)  
 b.  $\forall w[\forall x[[\text{violent leaders}(x,w)] \rightarrow [\text{some associated property}(x,w)]] \rightarrow \forall x,s[[\text{leader}(x,w)] \rightarrow [\text{dangerous}(s, x,w)]]]$

However, what the sentence expresses is that leaders are dangerous in virtue of being violent (Rooth, 1995; Vogeleeer and Tasmoski, 2005). Casting this interpretation in Greenberg's framework leads to conclude that leaders are violent by nature.

- (28) a. Des leaders sont dangereux (in virtue of being violent)  
 b.  $\forall w[\forall x[[\text{leaders}(x,w)] \rightarrow [\text{violent}(x,w)]] \rightarrow \forall x[[\text{leader}(x,w)] \rightarrow [\text{dangerous}(s, x,w)]]]$

This shortcoming seems sufficient to reconsider the account, while keeping its motivation: IS sentences rely on a particular kind of accessibility relation (or restriction of the modal basis).

## 4 Point of views

In what follows we argue that point of views can be treated as restrictions of the modal basis and that different lexical, syntactic and discursive phenomena set point of views.

### 4.1 Point of views as modal basis restrictors

Point of views are known in the literature under the terms of *frame* (Nunberg, 1975); or *media* (Ross, 1997). These are considered to be sets of content-coherent propositions. In this paper we adopt a broader notion that includes not only spaces, but also *perspectives* that the speaker adopts to draw certain conclusions. A proposition is true or relevant in virtue of being considered under a particular perspective, but false under a different one. Charolles (1997) has shown in detail that there are two different kinds of respects: spatiotemporal (23a) and epistemic (23b). These correspond to easily recognizable expressions in natural language, which, preferably occupy the left periphery.

- (29) a. In Europe, people eat five servings of fruits per day  
 b. According to the doctor, you have to stay home

In formal terms, the modal Kratzerian framework indirectly introduces viewpoints as conversational backgrounds. Kratzer (1981) proposes that modal doxastic and deontic

utterances exploit modal bases, i.e. set of worlds and an ordering relation.  $w' \leq w$  means that  $w'$  is preferred over  $w$  along the dimension with respect to which the worlds in the modal basis  $W$  have been chosen. In the same line of thought, in our account, viewpoints determine the modal basis. Worlds that are selected under a certain viewpoint support the same information i.e. are worlds in which the same laws hold. In other words, worlds that belong to the same modal basis are characterized by a set of coherent propositions. Let us call a pair  $m_1 = (W, \leq)$  a modal viewpoint.

- (30)  $p \rightarrow q$  is true in  $m_1$  iff for every  $w$  where  $p$  is true, there is a world  $w'$  such that
- (i)  $w' \leq w$ ,
  - (ii)  $p \wedge q$  is true at  $w'$  and for every world  $w''$  such that  $w'' \leq w'$ ,  $p \rightarrow q$  is true at  $w''$ .

The intuition behind (30) is that if  $p$  is true somewhere in  $W$ , there must be a world at least as normal as the world where  $p$  is true and  $p \rightarrow q$  is true there and down through the world sequence. In other words, from  $w$  one can always reach the point where  $p \rightarrow q$  becomes irreversibly more normal than  $p \wedge \neg q$ . (see definition 6, Kratzer, 1991).

The formalization of point of views requires further elaboration, though. Ross (1997) clearly presents the reasons for adding a judge parameter to the world parameter. Assume two superposed circles (Figure 1): a white and a black one, in a world  $w$ . The truth of the proposition “the black circle is on top of the white one” depends on the judge: it is true for judge  $i_2$ , and false for judge  $i_1$ . Under this account, a point of view is determined by a world-judge pair.

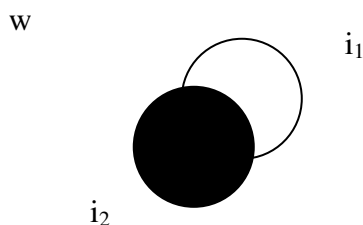


Figure 1 (Ross, 1997)

(31) amends (30). Let us then call a pair  $m = \langle \langle W, I \rangle, \leq \rangle$  a modal viewpoint.

- (31)  $p \rightarrow q$  is true in  $m$  iff for every  $\langle w, i \rangle$  where  $p$  is true, there is a world  $\langle w', i \rangle$  such that (i)  $\langle w', i \rangle \leq \langle w, i \rangle$ , (ii)  $p \wedge q$  is true at  $\langle w', i \rangle$  and for every world  $\langle w'', i \rangle$  such that  $\langle w'', i \rangle \leq \langle w', i \rangle$ ,  $p \rightarrow q$  is true at  $w''$ .

(31) expresses the fact that a proposition  $p \rightarrow q$  becomes irreversibly more normal than  $p \wedge \neg q$  in worlds accessible from  $w$  in which the perspective of judge  $i$  is adopted.

Assuming that point of views are world-judge pairs, the interpretation of generic indefinites is as follows:

- (32) IS sentences are true at  $w$  iff:  
 $\forall \langle w', i \rangle [ \langle w', i \rangle \leq \langle w, i \rangle \rightarrow \forall x [ P(x, \langle w', i \rangle) \rightarrow Q(x, \langle w', i \rangle) ] ]$   
 Paraphrase: in all maximally similar accessible worlds, under the point of view of judge  $i$ , the proposition  $\forall x [ P(x) \rightarrow Q(x) ]$  is true.

In the next session we show that the phenomena presented in section 3 are evidential strategies that instantiate point of views in the sense of (32)<sup>5</sup>.

## 4.2 Some evidential strategies in French

According to our definition of point of view, the truth of the generic sentences holds in all worlds accessible from the actual one, in which the point of view of the speaker holds. Before presenting our account of the data, we make explicit a constraint that is associated with point of views.

- (33) **Contrastiveness constraint associated with points of views.** The proposition  $p$  expressed by assertion  $a$  must be overtly marked as true *only* relatively to a specified judge.

Default parameters are not sufficient for satisfying the constraint, which is naturally met whenever two contrasting views are involved.

*Contrastive topic* containing a focused phrase is standardly taken to introduce the presupposition that the focus value is part of a set of alternatives (Rooth, 1985; Büring, 2003). Building on Büring's (2003) view that contrastive topics are bound to discursive contexts in which different sequences are put in place (questions-subquestions or, question-answers pairs), we reinterpret alternatives in a dialogic framework in which every alternative is associated with a different index for the **A(SSERT)** (Jacobs, 1984) operator, i.e. to different participants/different moves of the same participant.

- (34) [Un CHIen<sub>F</sub>]<sub>CT</sub> [est INTelligent<sub>F</sub>]<sub>COMM</sub>  
 = {As, x, P | As ∈ {speaker, hearer, other participants} | {x ∈ {chien, chat, ...} | P ∈ {intelligent, stupid, ...}}}  
 = {{ {speaker, dog, intelligent; speaker, dog, stupid}, {speaker, cat, intelligent; speaker, cat, stupid} }, {{hearer, dog, intelligent; hearer, dog, stupid}, ... } }

It is then clear how the contrastiveness constraint gets satisfied: the proposition *a dog is intelligent* is bound to a participant, in contrast with other propositions, bound to different participants. The legitimate interpretation for (34) is (35), which expresses that

<sup>5</sup>See also Matthewson, David & Rullman (2007) and their treatment of evidentials in St'at'imcets.

the causal relation between *dogness* and *intelligence* holds according to judge *i*, in contrast to at least a different judge.

- (35)  $\forall \langle w', i \rangle [ [w' \text{ maximally similar accessible from } w \text{ \& } i \text{ is the speaker}] \rightarrow \forall x [\text{dog}(x, \langle w', i \rangle) \rightarrow \text{intelligent}(x, \langle w', i \rangle)] ]$   
 Paraphrase: in all maximally similar accessible worlds, under the point of view of the speaker, a dog is intelligent

*Other contrast strategies.* Another contrast strategy consists in comparing two indefinite generic sentences, in which the association with focus operator is itself focused. This way, a framework is set in which (i) every sentence brings its own silent A operator; (ii) the overt association with focus operator, being focused itself, gets bound by the A operator.

We then obtain a scenario in which the speaker asserts one among different propositions (which as before could have been endorsed by other participants). For signaling that in the subsequent sentences the speaker is endorsing one among the other possibilities, we change the index of the second A operator. The contrastiveness constraint is again satisfied<sup>6</sup>. (We spouse the view according to which negation works in association with focus).

- (36)  $\text{ASSERT}_1[\text{Un CHI}_{\text{F1}}]_{\text{CT}} [\text{est INTelligent}_{\text{F1}}]_{\text{COMM}}, \text{ASSERT}_2[\text{un CHAT}_{\text{F2}}]_{\text{CT}} [\text{NON}_{\text{F2}}]_{\text{COMM}} / A \text{ dog is intelligent, a cat is not}$   
 $= \{As, op, x, P \mid As \in \{\text{speaker, hearer, ...}\} \mid op \in \{\text{no, too}\} \mid \{x \in \{\text{dog, cat...}\} \mid P \in \{\text{intelligent, stupid, ...}\}\}$   
 $= \{ \{ \{ \text{speaker, no dog intelligent; speaker, no, cat, intelligent} \}, \{ \text{speaker, yes, dog intelligent; speaker yes cat intelligent} \} \}, \{ \{ \text{hearer, no, dog, intelligent} \}, \{ \text{hearer, no, cat, intelligent} \} \}, \{ \text{hearer, yes, dog, intelligent; hearer yes, cat, intelligent} \} \}$

*Evidentials proper.* Besides providing information about the degree of confidence of the source of the belief/thinking ... the predicates *croire*, *trouver* and *savoir* have the primarily function of overtly specifying the source of the evidence. This is not enough for satisfying the contrastiveness constraint. Besides *trouver* which is specialized for expressing irreducibly attitude holder oriented beliefs, *savoir* and *croire* require extra material for fulfilling the contrastiveness constraint, respectively focus (enhancing the interpretations mentioned in section 2 (see Simons, 2007)) and approval request. In these cases, the following interpretation is legitimated<sup>7</sup>.

<sup>6</sup>This trick allows us to render justice of the dialogic dimension when one participant is involved.

<sup>7</sup>The contrastiveness constraint is also naturally fulfilled by focused adverbs expressing probability expectations of the speaker. The same reasoning as above applies

- (37)  $\forall \langle w, i \rangle$  [[ $w'$  maximally similar accessible from  $w$  &  $i$  is the speaker]  $\rightarrow$   
 $\forall x$  [dog( $x, \langle w', i \rangle$ )  $\rightarrow$  intelligent( $x, \langle w', i \rangle$ )]]  
 Paraphrase: in all maximally similar accessible worlds, under the point of view  
 of the speaker, a dog is intelligent

*Modalities.* The treatment we have proposed here for indefinite generics shares the basic insights of Stephenson (2006) after McFarlane (2006): epistemic modals introduce a parameter for the holder of the belief. Crucially, again, either the modal has to be stressed, or the sentence has to be used in polyphonic contexts, in which the belief is questioned. Bringing in other epistemic evaluations bound to other participants, the contrastiveness constraint is satisfied.

- (38) [Une fille]<sub>TOPIC</sub> [[peut<sub>F</sub>] aller à l'école]<sub>COMM</sub>  
 $\exists \langle w, i \rangle$  [[ $w'$  maximally similar accessible from  $w$  &  $i$  is the speaker]  $\rightarrow$   
 $\forall x$  [girl( $x, \langle w', i \rangle$ )  $\rightarrow$  go\_to\_school( $x, \langle w', i \rangle$ )]]

We suggest treating indefinite generics with deontic modals in a similar way. It is the case that this kind of sentences (expressing  $p$ ) are uttered in contexts where it is *not* necessarily put into practice that  $p$  or in exception configurations. By uttering (15), the relevant participant endorses the law, and the sentence obtains its *prescriptive* character.

## 5 Conclusion

The account we have proposed for generic indefinites pleads in favor of a unitary view of indefinites as requiring an anchoring context in any of its uses, existential and predicative indefinites (Mari and Martin, 2008b). We have introduced the notion of point of view, which, after Ross (1997) and Stephenson (2006) we have instantiated as world–judge pairs. Point of views come along with a contrastiveness constraint, requiring the truth of the proposition expressed by the indefinite generic sentence to be overtly signaled as relative to a judge, in contrast with at least a different judge. For a general theory of indefinite generic, this entails that they express a truth which is not based on induction, but depends on a different parameter, namely the judge. For a general theory of subjective meaning, this sheds new light on contrast and focus as bounded to a dialogic dimension, in which alternatives get bounded to different participants in the conversation. This treatment of focus provides a theoretical framework for the notion of prescription. Finally, attitude verbs are also shown to improve the acceptability of indefinite generic sentences since, in their evidential use, they (i) introduce a judge parameter, (ii) are lexically, prosodically, and discursively bounded to strategies that satisfy the contrastiveness constraint.

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